

Application No: 10/663,024 Docket No.: Q201-US1

Page 7

REMARKS

Claims 1, 30, and 47 are currently amended. Claims 2-3, 6, 8, 10-12, and 34-44 are canceled. Claims 4-5, 7, 9, 13-18, 21-29, 31-33, and 45-46, and 48-49 were previously presented. Claims 19-20 are withdrawn. Accordingly, claims 1, 4-5, 7, 9, 13-18, 21-33, and 45-49 are pending examination.

Claim Objections

The amendment to claim 30 clarifies the [EO]/[Li] ratio.

Rejection Under 35 USC §112(b)

Claim 47-49 stands rejected under 35 USC §112, first paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the Office Action argues that it was not clear that the Applicant was in possession of the claimed subject matter at the time the application was filed.

Paragraph 36 provides that “a cyclic polysiloxane having a structure according to General Formula I and/or General Formula II is entrapped within the network polymer.” Claims 47-49 are directed to the “and” portion of the “and/or” expression. Accordingly, the Applicant was in possession of the subject matter of claims 47-49 at the time the application was filed.

Rejection of Independent Claim 1

Claim 1 stands rejected under 35 USC §103 as being unpatentable over U.S. Patent No. 6,858,351 (Miura).

The Office Action argues it would be obvious to substitute the side chains of Miura’s formula (a-3) with the components of other compounds disclosed in Miura. However, it cannot be argued that it would be obvious to substitute the -Si-H linkages in Miura’s formula (a-3) with these other components. The purpose of the compound in Miura’s formula (a-3) is to act as a “crosslinking agent” that cross-link the copolymer (C6, L67 and C6, L19). Since the -Si-H linkages take part in the cross linking reaction (see hydrosilylation in C7, L51), one

Application No: 10/663,024 Docket No.: Q201-US1

Page 8

of ordinary skill in the art would believe that the formula (a-3) compound would stop functioning as a crosslinking agent if -Si-H linkages were no longer present. For instance, note that hydrosilylation no longer occurs without an -Si-H linkage. Additionally, there is nothing in Miura that suggests that the cross linking reaction will continue to occur if the -Si-H linkages are replaced with the components suggested in the Office Action. Since a person of ordinary skill in the art would conclude that the formula (a-3) compound would not operate as intended without the -Si-H linkages, a person of ordinary skill in the art would not modify these linkages with the suggested components.

Even if the R12 and/or R11 variable in the formula (a-3) compound were substituted as suggested in the Office Action, the claimed polysiloxane does not result. For instance, even if these substitutions are made, the -Si-H linkages are still present in the formula (a-3) compound. However, the polysiloxane of claim 1 excludes -Si-H linkages. As a result, even when R12 and/or R11 are modified as suggested in the Office Action, the cyclic polysiloxane represented by Miura's formula (a-3) does not result in the polysiloxane of claim 1.

Actually, Miura teaches that in the final product the -Si-H linkages in the n-silicons of formula (a-3) are replaced with a link to a copolymer. In particular, Miura teaches that the polysiloxane of formula (a-3) is reacted with other products such that the n-silicons of formula (a-3) become linked to the structural unit represented by structural unit (iii). The linkage between the polysiloxane of Miura's formula (a-3) and the structural unit (iii) is through the functional group R² of structural unit (iii) (see C6, L66-67 in view of C4, L20). The structural units (iii) are included in a copolymer as disclosed at C2, L6-8 and C3, L41-42. As a result, Miura teaches that in the final product, the n-silicons of formula (a-3) are each linked to a copolymer. However, claim 1 excludes side chains linked to copolymers. As a result, the cyclic polysiloxane of claim 1 is not present in Miura's final product even when R12 and/or R11 are modified as suggested in the Office Action.

Additionally, with respect to the Office Action argument that it would have been obvious to modify the side chains of Miura's formula (a-3) with components from other compounds disclosed in Miura, Miura must teach or suggest every element of claim 1 in order to support the obviousness rejection. As a result, for Miura to support the obviousness rejection, Miura must suggest a cyclic polysiloxane having the claimed sidechain structure. There is nothing in Miura that suggests a cyclic polysiloxane having the claimed sidechain

Application No: 10/663,024 Docket No.: Q201-US1

Page 9

structure. In particular, there is nothing in Miura suggesting that the suggested components be substituted for sidechains in the formula (a-3) compound. If this rejection is maintained, it is respectfully requested that the Examiner indicate where Miura suggests cyclic polysiloxanes with the claimed sidechain structure.

A person of ordinary skill in the art would conclude that replacement of the -Si-H linkages with the suggested components would not permit the formula (a-3) compound to operate as intended and would not make the suggested substitution. Further, modifying the R12 and/or R11 variables in the formula (a-3) as suggested in the Office Action does not result in the claim 1 polysiloxane. For this reason alone, claim 1 is patentable over Miura. Additionally, Miura does not suggest a cyclic polysiloxane having the sidechain structure recited in claim 1. For this reason alone, claim 1 is patentable over Miura.

Rejection of Claims 4-5, 7, 9, 13-18, 21-33, and 45-49

Claims 4-5, 7, 9, 13-18, 21-33, and 45-49 each depend directly or indirectly from Independent claim 1. Since independent claim 1 is believed to be in condition for allowance, these claims are also believed to be in condition for allowance.

Preparation for Further Prosecution

For the purposes of Appeal, the Applicant presents the following documents:

- "Short Summary of IUPAC Nomenclature of Organic Compounds" downloaded from www.uwc.edu/dept/chemistry/helpful_files/nomenclature.pdf on September 13, 2005.
- IUPAC Recommendations on Macromolecular (Polymer) Nomenclature.
- The alkoxy definition from wikipedia.com as downloaded on September 14, 2005.
- The alkoxy definition from answers.com as downloaded on July 3, 2007.
- The alkoxy definition from encyclopedia.thefreedictionary.com as downloaded on July 3, 2007.
- The hydrosilylation definition from answers.com.
- A portion of wikipedia.org illustrating hydrosilylation.

Application No: 10/663,024 Docket No.: Q201-US1

Page 10

CONCLUSION

The Examiner is encouraged to telephone the undersigned with any questions.

Respectfully submitted,



Travis Dodd
Reg. No. 42,491
Agent for Applicant(s)

Quallion LLC
P.O. Box 923127
Sylmar, CA 91392-3127
818-833-2003 ph
818-833-2065 fax